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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/728,503	12/05/2003	Joseph Albertelli	70811.01	9111

22509 7590 08/16/2005

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EXAMINER

ELDRED, JOHN W

ART UNIT	PAPER NUMBER
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3644

DATE MAILED: 08/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/728,503

Applicant(s)

ALBERTELLI, JOSEPH

Examiner

J. Woodrow Eldred

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 June 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) 10-16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 and 17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-9, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over either one of Li et al (4,916,000) or Harpell et al (4,737,402) in view of GB 2024755.

Each of Li et al and Harpell et al disclose substantially all claimed elements of the invention, including the formation of ballistic protection composite panels comprising a first layer formed from high molecular weight polyethylene fibers with a phenolic resin matrix, a middle layer of high molecular weight polyethylene fibers with an epoxy resin matrix, and a third layer of high molecular weight polyethylene fibers with a phenolic resin matrix. See especially column 6, line 6; column 9, lines 9-15; and column 17, lines 5-25 of Li et al and column 8, lines 33-38; column 9, lines 44-53; column 10, lines 17 and 54-60 of Harpell et al. Li et al and Harpell et al fail to disclose that the composite panels are specifically used for cockpit doors or to have a transparent portion of the door assembly, however, each of them specify that they are used as ballistic protection and are for use in aircraft. GB 2024755 teaches that it is well known to use bullet-proof materials to form cockpit access doors with ballistic protection and to provide a window in the door. See especially page 1, lines 69-71 and 85-88. Motivation to combine is the substitution of a particular material for an unspecified material for a particular purpose within the generally disclosed environment of an aircraft and to increase the performance of the security door by allowing a person to see to the other side of the door. To employ the teachings of GB 2024755 on either Li et al or Harpell et al and have a cockpit door with a window formed from the composite material is considered to have been obvious to one having ordinary skill in the art. Li et al and Harpell et al fail to specify the particular weaves of the layers. To choose a particular relative weave is considered within the normal and obvious engineering choices available to one of ordinary skill in the art,

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especially without evidence of unexpected results. It is especially obvious to assume that a different weave (e.g. a “loose” weave) would be used for the middle layer with epoxy resin, as opposed to the phenolic resin of the outer layers, in order to have a particular desired performance.

3. Applicant's arguments filed 6-13-05 have been fully considered but they are not persuasive. Note that all claimed parameters such as “ultra-high”, “dense”, “loose” are relative terms that, without further limitations, are met by the prior art (and Harpell et al actually references “ultra-high molecular weight polyethylene”). It is also noted that, unlike the arguments made on page 6 of the Remarks, the claims fail to specify that “all layers are rigid with a high modulus composite”. In any case, these parameters are met by the prior art. The argument that the references cite an “elastomeric matrix” and the present invention does not include that feature is moot, since it is not excluded by the claims and all other claimed structural elements are present in the prior art. As to the argument that the prior art does not show a cockpit door, this is not believed to be accurate, since there is no structure claimed to exclude the armored door of GB2024755 as being read over a “cockpit door, since this door leads into the area secured for the pilots to control the aircraft.

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

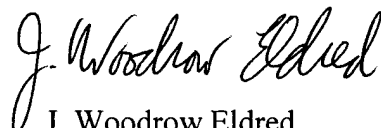
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to J. Woodrow Eldred whose telephone number is 571-273-6901. The examiner can normally be reached on Monday to Thursday, from 8:00 a.m. to 5:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Teri Luu can be reached on 571-272-7045. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



J. Woodrow Eldred
Primary Examiner
Art Unit 3644

JWE